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CLAIMS

A method for measuring the activity or concentration of a 1. biomolecule comprising:

providing a reaction vessel containing a sample, said sample including a biomolecule having a biological activity;

providing a probe coated with a reactant, said reactant being capable of interacting with the biomolecule;

adding a known quantity of a compound with a detectable label to the sample;

inserting the probe into the reaction vessel such that the biomolecule and the detectable label contact the reactant and interact with the reactant such that label is bound to the reactant;

removing the probe from the reaction vessel; and measuring the quantity of detectable label in the reaction vessel and/or on the probe.

The method according to claim 1 wherein the probe has a 2. shape selected from the group consisting of: pin-like; cone-like; cuboid; cylindrical; star-shaped; and spire-shaped.

- The method according to claim 4 wherein the detectable label is 3. selected from the group consisting of: colorimetric label; radioactive label; luminescent label and fluorescent label
- The method according to claim 1 wherein the reactant is bound 4. to the probe.
- The method according to claim 1 wherein the sample is a 5. biological sample.
- The method according to claim 1 wherein the biological activity 6. is an enzymatic activity.
- The method according to claim 1 wherein the biological activity 7. is a binding affinity.
- The method according to claim 1 wherein the sample includes 8. an inhibitor of the biological activity of the biomolecule.



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- 9. The method according to claim 1 wherein the sample includes a competitor of the biological activity of the biomolecule.
- 10. The method according to claim 1 wherein the biomolecule is selected from the group consisting of: an enzymatic product; an enzyme; a substrate; a lectin; a lectin-binding ligand; a receptor; an inhibitor; a receptor binding ligand; an antigen; and an antibody.
- 11. The method according to claim 1 wherein the compound is selected from the group consisting of: an enzymatic product; an enzyme; a lectin; a lectin-binding ligand; a substrate, a receptor; an inhibitor; a receptor binding ligand; an antigen; and an antibody.
- 12. A method for measuring the activity or concentration of a biomolecule comprising:

providing a reaction vessel containing a sample, said sample including a biomolecule having a biological activity;

providing a probe coated with a reactant, said reactant being capable of interacting with the biomolecule, said reactant including a detectable label;

inserting the probe into the reaction vessel such that the reactant and the detectable label contact the biomolecule and interact with the biomolecule such that label is released from the reactant;

removing the probe from the reaction vessel; and

measuring the quantity of detectable label in the reaction vessel and/or on the probe.

- 13. The method according to claim 12 wherein the probe has a shape selected from the group consisting of: pin-like; cone-like; cuboid; cylindrical; star-shaped; and spire-shaped.
- 14. The method according to claim 12 wherein the detectable label is selected from the group consisting of: colorimetric label; radioactive label; luminescent_label; and fluorescent label.
- 15. The method according to claim 12 wherein the reactant is bound to the probe.
 - 16. The method according to claim 12 wherein the sample is a

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biological sample.

- 17. The method according to claim 12 wherein the biological activity is an enzymatic activity.
- 18. The method according to claim 12 wherein the biological activity is a binding affinity.
- 19. The method according to claim 12 wherein the sample includes an inhibitor of the biological activity of the biomolecule.
- 20. The method according to claim 12 wherein the sample includes a competitor of the biological activity of the biomolecule.
- 21. The method according to claim 12 wherein the biomolecule is selected from the group consisting of: an enzymatic product; an enzyme; a substrate; a receptor; a receptor ligand; an antigen; a lectin; a lectin-binding ligand; a ligand; and an antibody.